

Abstract

Methods and devices are provided for the localized administration to a patient of moieties effective for inhibiting unwanted cellular growth, including restenosis of an artery treated with a stent implant for blockage of blood flow by an atherosclerotic lesion. After implantation of a medical device capable of moiety-binding, moieties effective at inhibiting unwanted cellular growth are administered locally to a patient. In this manner the deleterious side-effects of systemic administration of moieties are avoided. Upon localized administration, the moieties bind the medical device, rendering the medical device itself capable of inhibiting unwanted cellular growth. According to an embodiment, after implantation of a stent, radioactive moieties specific for receptors immobilized on the stent surface are locally administered using a balloon perfusion catheter. The moieties bind specifically the receptors, becoming immobilized thereto, thereby rendering the stent radioactive and effective for inhibiting restenosis.